Understanding ART Adherence

SUMMARY

South Africa has the highest HIV prevalence in the world, and although HIV is now regarded as a chronic condition, some HIV positive individuals still do not adhere to their antiretroviral therapy (ART). This thesis investigated the structural and psychosocial determinants of ART adherence among pregnant women in Mpumalanga province, South Africa. The five empirical studies that make up this thesis and the major recommendations are summarized below.

The first study of this thesis explored the prevalence of ART drugs adherence as well as the factors associated with ART drugs adherence among the study population. This study therefore sets the scene in understanding the study population group which consisted of 673 HIV-positive pregnant women, with a mean age of 28 years old. The study found high non-adherence to ART among both self-reported measures i.e 21% AACTG non-adherence and 31% VAS non-adherence. A number of covariates were found to contribute to nonadherence and include alcohol intake, the desire to avoid ART side effects, non-disclosure of ones HIV status, depression, and HIV knowledge. Older age was an important outcome for increased adherence to ART as the study found that respondents who were of an older age were more likely to be adherent than younger respondents in study sample.

The second study examined the pregnant woman's determinants of HIV-positive status disclosure and non-disclosure. ART adherence was used as a covariate to understand its association with disclosing ones HIV positive status to someone or to one's partner. High levels of overall non-disclosure of the respondents' HIV positive status was noted in this study as just over two fifths did not disclose their HIV positive status to their male partners and over a quarter did not disclose to someone. Non-disclosure of ones HIV positive status was strongly associated with non-adherence of ART. Multivariate analysis showed that both disclosure of ones HIV status to someone and to their male partners was significantly associated with increase in ART adherence, the known HIV positive status of their partner, and male involvement during pregnancy. Participants who were diagnosed HIV positive during this current pregnancy were less likely to disclose their HIV status to someone.

The third study explored the HIV positive pregnant women's socioeconomic, behavioral and HIV-related correlates of internalized stigma. In this study, ART adherence was used as a covariate to understand its association with each of the four internalized stigma factors: personalized stigma, concerns with public attitudes about people with HIV, disclosure concerns, and negative self-image. This study found that having no male partner involvement in the antenatal stage of the pregnancy was significantly associated with experiencing all four of the internalized stigma factors. IPV was found to be significantly associated with experiencing personalized stigma, concerns with public attitudes about people with HIV, and

experiencing the stigma of negative self-image. Women whose household income was classified as low, were more likely to experience three of the four HIV-related stigma factors. Respondents that did not complete school, were also more likely to experience personalized stigma.

The fourth study compares the results from two self-reported adherence scales, namely the visual analog scale (VAS) (Giordano et al., 2004) and the Adult AIDS Clinical Trials Group (AACTG) (Chesney et al., 2000) scale, with the respondents dried blood spot (DBS) adherence measure. Comparing all three measures of adherence at 32 weeks pregnant, 86% of respondents' self-reported adherent on the VAS and 80% self-reported adherent on the AACTG, whereas 74% were found to be ART adherent according to their DBS result.

The final study examines the self-reported change in ART adherence over time and the reasons for missing ART. This study utilized the respondent's baseline (8-24 weeks pregnant) and 12 month post-partum data points to test an ART adherence intervention and understand ART adherence change over time. The intervention did not have the desired outcome on remaining adherent nor did it have an impact on becoming adherent over time, which was likely due to the significantly greater proportion of non-adherent women in the experimental condition than in the control condition at baseline (55 versus 46%). An additional potential reason for intervention failure could stem from the study design of being a cluster-randomized trial. The study also find that there was a change to nonadherence over time and although a distressing intervention effect, the finding mimics reported longitudinal studies among HIV infected women from around the world. The necessity-concerns framework (Horne et al., 2004; Clifford et al., 2008) clarifies that the mother adhered to her ART regime as she deemed it necessary to protect the fetus from HIV and thus the concerns for the unborn baby outweighed the concerns about taking the medication. Once the child was born HIV-negative, the mother had no concern for the transfer of HIV from mother to child and therefore may not have been motivated to continue taking her ART, and post-partum ART adherence decreased. At this juncture, the concern about taking ART outweighed the necessity to take it. During the post-natal phase, high loss to follow-up was experienced. Both the high loss to follow up and limited ART adherence intervention during the post-natal phase of the study resulted in a lack of intervention for the majority of respondents. Reason given by the respondents in the enhanced intervention group for missing their ART include that they were away from their home when they needed to take their medication, having problems taking their medication at specified times and, having problems taking their medication due to the lack of food.

This thesis concludes with practical implications from its findings. These recommendations include: (1) the need for interventions to show the necessity and mitigate the concern of adhering to the ART regime post-partum, (2) better

retention at clinic level by increasing clinic outreach, (3) creation of a nationally linked electronic patient file network where all patients can access health care in any public clinic/hospital in South Africa and have their health files readily available to them, (4) the need to encourage disclosure as a way to promote ART adherence, (5) increased psychosocial support for newly diagnosed, (6) encouraging male partner involvement during and after pregnancy, (7) support groups for both women and men need to be set up to mitigate IPV as well as to cope should it happen, (8) support groups for women to provide them with a safe space to talk through their issues and assist them with their depression, (9) ART adherence testing through DBS where needed, and (10) usage of the 40-item internalized stigma scale among other vulnerable populations in South Africa.